

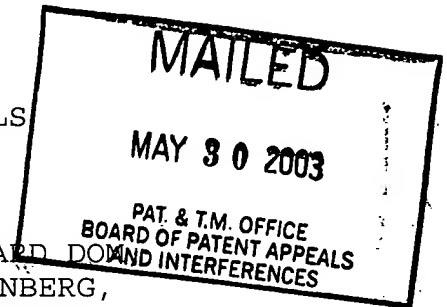
The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SOUMEN CHAKRABARTI, BYRON EDWARD DOW
DAVID ANDREW GIBSON, JON MICHAEL KLEINBERG,
PRABHAKAR RAGHAVAN and SRIDHAR RAJAGOPALAN



Appeal No. 2001-1557
Application No. 08/947,221

ON BRIEF

Before RUGGIERO, DIXON, and BARRY, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the Examiner's rejection of claims 1-12. Claim 13 has been canceled.

The disclosed invention relates to a method of finding relationships between entities in which affinity values for each entity are obtained which represent some affinity between each

entity and each of the other entities in a collection. The affinity values are combined to form a similarity value for each entity, and significance values are initialized for each of the entities. Iterative calculations are performed to update the significance values until a predetermined condition is reached, with the desired result being obtained based on the significance values after the final iteration.

Claim 1 is illustrative of the invention and reads as follows:

1. A method for eliciting information, useful to a user, from first and second collections of entities or resources with explicit and/or implicit, static and/or dynamic relations therebetween, the method comprising the acts of:

obtaining the first collection of entities and the second collection of entities, hyperlinks being established between at least some of the entities;

obtaining affinity values, including, for each given one of the entities, a respective affinity value for the given entity and each respective one of the other entities of the collection, whereby at least one affinity value depends at least in part on at least one hyperlink;

initializing significance values for each of the entities;

iteratively calculating updated significance values for each entity, based on the affinities and on the significance values prior to the iterative update, until a predetermined condition is reached; and

obtaining the useful information based on the significance values after the final iteration of the act of iteratively calculating.

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The Examiner relies on the following prior art:

Deerwester	5,778,362	Jul. 07, 1998 (filed Jun. 21, 1996)
Shoham	5,855,015	Dec. 29, 1998 (filed May 12, 1995)

Microsoft Press Computer Dictionary (Microsoft), Third Edition, pages 240 and 478 (1997).

Claim 12 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Shoham. Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deerwester in view of Microsoft.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs¹ and Answers for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and

¹ The Appeal Brief (Paper No. 13) and Supplemental Appeal Brief (Paper No. 15) were filed March 27, 2000 and July 22, 2000, respectively. In response to the Examiner's Answer dated August 29, 2000 (Paper No. 16) and Supplemental Examiner's Answer dated May 23, 2002 (Paper No. 19), a Reply Brief was filed June 24, 2002 (Paper No. 20), which was acknowledged and entered by the Examiner as indicated in the communication dated September 17, 2002 (Paper No. 21).

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taken into consideration, in reaching our decision, Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answers.

It is our view, after consideration of the record before us, that the Shoham reference does not fully meet the invention as set forth in claim 12. With respect to the Examiner's obviousness rejection, we are also of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as recited in claims 1-11. Accordingly, we reverse.

We consider first the rejection of claim 12 under 35 U.S.C. § 102(e) as being anticipated by Shoham. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

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With respect to claim 12, the Examiner attempts (Answer, page 3, which makes reference to the Office action mailed June 20, 2000, Paper No. 14) to read the various limitations on the disclosure of Shoham. In particular, the Examiner directs attention to the directed graph illustration in Figure 2 of Shoham along with passages from columns 9 and 10 in Shoham related to the flow chart illustration in Figure 5.

Appellants' arguments in response assert a failure of Shoham to disclose every limitation in independent claims 12 as is required to support a rejection based on anticipation. At pages 6 and 7 of the Supplemental Brief, Appellants' arguments focus on the contention that, contrary to the Examiner's interpretation of Shoham, there is no disclosure of the obtaining of a respective affinity value for each given entity and each respective one of the other entities as set forth in appealed claim 12. In Appellants' view, while the Examiner has pointed to the directed graph of Shoham's Figure 2 as an illustration of an asymmetric relationship among entities, there is no disclosure that affinity values for the respective entities are obtained.

After reviewing the Shoham reference in light of the arguments of record, we are in general agreement with Appellants' position as expressed in the Supplemental Brief. We find no

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support for the Examiner's conclusion that the claimed affinity values, and the obtaining of same, correspond merely to the node representation in the directed graph of Figure 2. Our review of Shoham indicates, as best described beginning at column 9, line 43 in relation to the figure 5 flow chart, that at least one selected node in the hyperlinked information resource network is evaluated and rated to indicate its probable relevance to a user. In our view, this relevance factor, at best, may arguably correspond to Appellants' claimed "significance" value. We find no evidentiary support, however, in the disclosure of Shoham, for the Examiner's conclusion that the determination of relevance or significance values for selected information resource network nodes results in the obtaining of affinity values for a given node or entity and each respective one of the other nodes or entities as claimed. The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the asserted conclusion. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002).

In view of the above discussion, since all of the claim limitations are not present in the disclosure of Shoham, we do

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not sustain the Examiner's 35 U.S.C. § 102(e) rejection of independent claim 12.

Turning to a consideration of the Examiner's 35 U.S.C. § 103(a) rejection of claims 1-11 based on the combination of Deerwester and Microsoft, we do not sustain this rejection as well. In addressing the language of independent claim 1, the Examiner (Office action, Paper No. 14) directs attention to portions of Deerwester which suggest application of the described data analysis methodology to Internet applications (e.g., column 8, line 66), as well as the mention of the use of Uniform Resource Locators (URLs) beginning at column 10, line 26. In our view, however, there is no disclosure in these portions or, for that matter, elsewhere in Deerwester, that supports the Examiner's position that entity affinity values are obtained in dependence on hyperlinks between entities as set forth in independent claim 1. While we do not dispute the Examiner's assertion that Internet users are able to navigate through a collection of entities, e.g., web sites, using hyperlinked information in the entities, it does not, in our view, necessarily follow that affinity values for given entities in relation to other respective entities are obtained in dependence on the hyperlinks between the entities.

Similarly, we don't disagree with the Examiner's assertion that the use of URLs enables a user to navigate through hyperlinked Internet web sites as evidenced by the Microsoft document. In our opinion, however, this fact alone does not support the Examiner's conclusion that Deerwester's mention of the use of URLs establishes that entity affinity values are determined in dependence on hyperlinks between the entities. In fact, a review of Deerwester's discussion of the use of URLs reveals that what is described is the ability of a user to locate a collection of data, for example, in a remote machine using the URL for that machine. In our view, this description in Deerwester falls well short of the evidence necessary to support the Examiner's position as to the claimed hyperlinked dependent obtaining of entity affinity values.

For all of the reasons discussed supra, because the Examiner has not established a prima facie case of obviousness since all of the claimed limitations are not taught or suggested by the applied Deerwester and Microsoft references, the 35 U.S.C. § 103(a) rejection of independent claim 1, as well as claims 2-11 dependent thereon, is not sustained.

In summary, we have not sustained either of the Examiner's 35 U.S.C. § 102(e) or 35 U.S.C. § 103(a) rejections of the claims

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claims on appeal. Therefore, the decision of the Examiner
rejecting claims 1-12 is reversed.

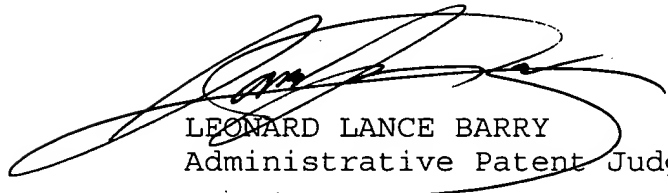
REVERSED



JOSEPH F. RUGGIERO)
Administrative Patent Judge)



JOSEPH L. DIXON) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES



LEONARD LANCE BARRY)
Administrative Patent Judge)

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